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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,593	01/17/2002	John M. Cioffi	TI-27725.3	3512

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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT PAPER NUMBER

2665

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,593

Applicant(s)

CIOFFI ET AL.

Examiner

Phuongchau Ba Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45, 46 and 49 is/are rejected.
- 7) ☒ Claim(s) 47-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Objections

1. Claims 45-46, 49 are objected to because of the following informalities:

all abbreviations should be labeled with descriptive legends {e.g., FFT (fast fourier transformer)}. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 49 recites the limitation "said forward error corrected data" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections – 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 45 and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Hulyalkar (5,291,289).

Regarding claim 45:

Hulyalkar discloses in a bi-directional data transmission system that facilitates communications between a plurality of remote units and a central unit using a symbol based discrete multi-carrier transmission scheme that has a multiplicity of discrete sub-channels provided for facilitating upstream communications between the plurality of remote units and the central unit, an apparatus transmitting data from a selected remote unit to the central unit, comprising:

a serial to parallel converter (10, fig.4) for receiving said data and converting said data to parallel data;

an encoder (20, fig.4) coupled to said serial to parallel converter 10 for encoding said parallel data according to one of a first and a second modulation schemes responsive to a control signal, said first modulation scheme being operative during a polled transmission mode and requires a receiver (130, fig.4) at said central unit to have prior knowledge of the identity of said selected

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remote unit for decoding, said second modulation scheme being operative during a fast access transmission mode and does not require the receiver at said central unit to have prior knowledge of the identity of said selected remote unit for decoding;

an IFFT modulator (30,fig.4) coupled to said encoder 20 for modulating encoded data from said encoder; and

a parallel to serial converter (inherent whereat between 30 and 40, fig.4) coupled to said IFFT modulator for converting modulated data from said IFFT modulator to a serial format for transmission to said central unit.

Regarding claim 49:

Hulyalkar discloses in a bi-directional data transmission system that facilitates communications between a plurality of remote units and a central unit using a symbol based discrete multi-carrier transmission scheme that has a multiplicity of discrete sub-channels provided for facilitating upstream communications between the plurality of remote units and the central unit, an

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apparatus receiving data sent from a selected remote unit to the central unit,
comprising:

a serial to parallel converter (80, fig.4) for receiving said data and
converting said forwarded error corrected data to parallel data;

a FFT demodulator (90, fig.4) coupled to said serial to parallel converter
80 for demodulating parallel data from said serial to parallel converter;

an decoder (100, fig.4) coupled to said FFT demodulator 90 for decoding
demodulated data from said FFT demodulator 90 according to one of a first and
a second demodulation schemes responsive to a control signal, said first
demodulation scheme being operative during a polled transmission mode and
requires prior knowledge of the identity of said selected remote unit for
decoding, said second demodulation scheme being operative during a fast
access transmission mode and does not require prior knowledge of the identity
of said selected remote unit for decoding; and

a parallel to serial converter (110, fig.4) coupled to said decoder 100 for
converting decoded data from said decoder 100 to a serial format.

Regarding claim 46:

Hulyalkar further discloses wherein said first modulation scheme is QAM and said second modulation scheme is DQPSK {col.3, lines 37-42}.

Allowable Subject Matter

6. Claims 47-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday 10:00AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUCHO
PRIMARY EXAMINER

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7-9-04

PN

Phuongchau Ba Nguyen
Examiner
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